

LACEWINGS AND AQUATIC INSECTS OF NEW ZEALAND

6. Gerroidea (Hemiptera:Heteroptera) in North Auckland

K. A. J. WISE

AUCKLAND INSTITUTE AND MUSEUM

Abstract. *Microvelia macgregori* (Veliidae), *Hydrometra risbeci* (Hydrometridae) and *Mesovelia* sp. (Mesoveliidae) are accepted as the three semi-aquatic bugs (Gerroidea) on fresh water in New Zealand and all occur through North Auckland. *Mniovelia kuscheli*, the New Zealand terrestrial Mesoveliid is also noted for North Auckland.

This Part, in the series, records semi-aquatic bugs (Gerroidea) in North Auckland, which is defined as in Part 5 (Wise 1990, this volume) where the counties are also indicated.

Family VELIIDAE

Microvelia macgregori (Kirkaldy, 1899)

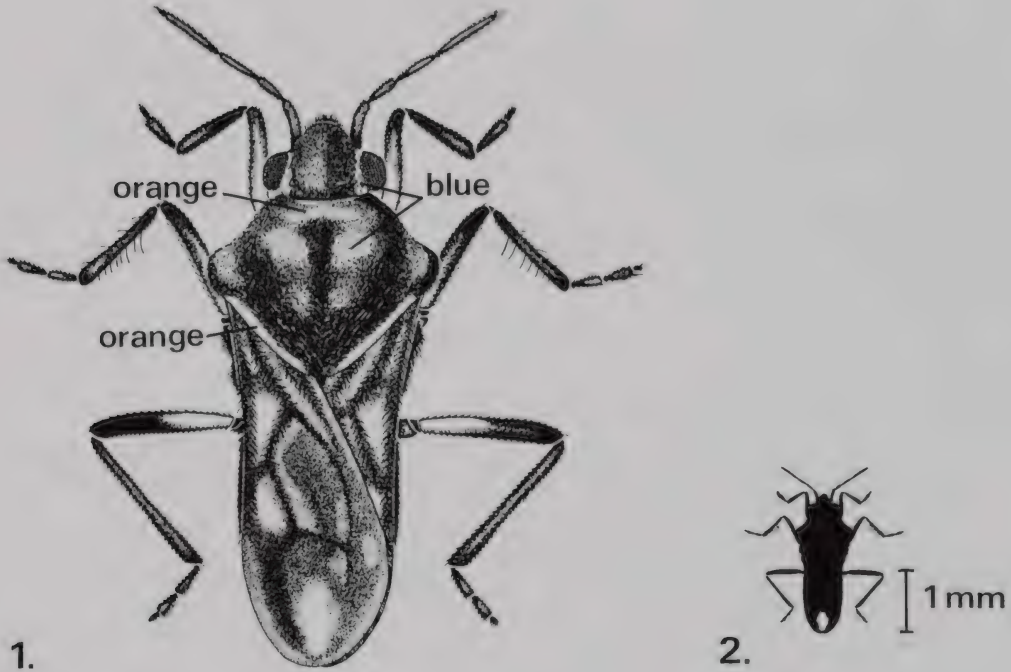
This species of pond skater has been established as the only species of Veliidae in New Zealand (Don 1967, Malipatil 1980).

The common apterous (wingless) form of the species occurs throughout North Auckland, including the far north (Mangonui Co).

Myers (1922) described the alate (winged) form and recorded it as abundant on alpine tarns in the Tararua Range (southern North Island) at ca. 1372 m (4500 ft) but extremely rare in the lowlands. In February (summer) he had found only alates on the tarns and he intimated that the occurrence of the winged form there and the wingless form in the lowlands was a function of altitude.

Alates have been collected by the author in North Auckland and elsewhere at low altitudes, for many years, though in very small numbers compared with the numbers of apterous individuals. However, in December 1989, on the far north peninsula (Mangonui Co), the author found a colony which appeared to be made up of alates (24 spec. coll K.A.J.W.) and immatures. This was on a man-made pond, in low-lying coastal pine forest at Hukatere, near Pukenui, which had been examined and collected previously during several years when no such numbers had been seen. It would appear that climate, altitude or distance from the coast are not factors in the production of alates, but either season (summer) or overcrowding may affect local populations.

The winged form of *Microvelia macgregori* is easily recognised (Fig. 1). The head and thoracic colouring is the same as the wingless form but the folded wings are dark and exhibit several dull white flashes and a more noticeable posterior oval white spot. On the water surface, an alate (Fig. 2) is seen as dark with the rounded posterior outline of the folded wings (not tapered as is the exposed body of the apterous form) and with the posterior oval white spot clearly visible at close quarters.



Figs. 1,2. *Microvelia macgregori* (Kirk., 1899). 1. Alate form (magnified). 2. Alate as seen on water surface.

Family HYDROMETRIDAE

Hydrometra risbeci Hungerford, 1938

This species of water measurer is widely spread through North Auckland. It was collected by the author, during December 1989, in the far north (Mangonui Co) at Te Werahi swamp, south of C. Reinga, and at Whareana, south of North Cape. The alate form (figured by Pendergrast & Cowley 1966) has been found at Auckland and probably occurs further north occasionally.

Family MESOVELIIDAE

In a brief note, Pendergrast (1959) recorded that a semi-aquatic and a terrestrial species of this family were present in New Zealand (both in North Auckland).

Mesovelgia sp.

The semi-aquatic species of Mesoveliidae was recorded by Pendergrast (1959) from a pond near Kaikohe (western Bay of Islands Co). Pendergrast & Cowley (1966) noted the Kaikohe occurrence and also collections from ponds near Auckland.

Under the name of *Mesovelgia* sp., a species was recorded and figured by Towns (1978) from one winged specimen taken on Waitakere River (Waitemata Co).

The present author has, in the past, found *Mesovelgia* colonies at the edge of a swampy lake elsewhere in Waitemata Co and at Te Werahi swamp in Mangonui Co (specimens are on loan overseas). In December 1989, the Te Werahi colony was re-collected, after a period of many years, but only apterous individuals were found.

Mniovelia kuscheli Anderson & Polhemus, 1980

This, the only other New Zealand Mesoveliid, is a terrestrial species mostly associated with moss and leaf litter. It was recorded by Pendergrast (1959) from the Waitakere Ranges (Waitemata Co), and elsewhere (outside North Auckland). Anderson & Polhemus (1980) gave many localities between Auckland and North Cape.

CONCLUSION

There is thus one species of freshwater semi-aquatic bugs in each of the three Gerroid families present in New Zealand, although one species is still undetermined. All three species, represented by apterous adults and immatures, are present in North Auckland, as are probably alate adults from time to time.

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